

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 09/155,7080  
Source: 1FW/6  
Date Processed by STIC: 3/9/06

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 03/09/2006

PATENT APPLICATION: US/09/155,708D

TIME: 14:19:57

Input Set : A:\OPT003.APP

Output Set: N:\CRF4\03092006\I155708D.raw

3 <110> APPLICANT: FARRAR, GWENYTH JANE  
4 HUMPHRIES, PETER  
5 KENNA, PAUL  
7 <120> TITLE OF INVENTION: GENETIC SUPPRESSION AND REPLACEMENT  
9 <130> FILE REFERENCE: OPT-003  
11 <140> CURRENT APPLICATION NUMBER: 09/155,708D  
12 <141> CURRENT FILING DATE: 1999-04-05  
14 <150> PRIOR APPLICATION NUMBER: PCT/GB97/00929  
15 <151> PRIOR FILING DATE: 1997-04-02  
17 <150> PRIOR APPLICATION NUMBER: GB 9606961.2  
18 <151> PRIOR FILING DATE: 1996-04-02  
20 <160> NUMBER OF SEQ ID NOS: 34  
22 <170> SOFTWARE: PatentIn Ver. 3.3  
24 <210> SEQ ID NO: 1  
25 <211> LENGTH: 617  
26 <212> TYPE: DNA  
27 <213> ORGANISM: Homo sapiens  
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57 <223> OTHER INFORMATION: a, c, g, or t  
59 <220> FEATURE:  
60 <221> NAME/KEY: modified\_base

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 62 <223> OTHER INFORMATION: a, c, g, or t ✓  
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 67 <223> OTHER INFORMATION: a, c, g, or t ✓  
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 77 <223> OTHER INFORMATION: a, c, g, or t ✓  
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 81 <222> LOCATION: (563)..(563) ✓  
 82 <223> OTHER INFORMATION: a, c, g, or t ✓  
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 107 <223> OTHER INFORMATION: a, c, g, or t ✓  
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 112 gctgagctca ggccttcgca gcattcttgg gtgggagcag ccacgggtca gccacaaggg 180  
 113 ccacagccat gaatggcaca gaaggcccta acttctacgt gcccttctcc aatgcgacgg 240  
 114 gtgtggtacg cagcccttc gagtaccac agtactacct ggctgagcca tggcagttct 300  
 115 ccatgctggc cgcctacatg tttctgctga tcgtgctggg ctccccatc aacttctca 360  
 116 cgctctacgt caccgtccag cacaagaagc tgcgcacgcc tctcaactac atcctggctc 420  
 W--> 117 aacctagccg tggctgaact cttcatggtc ctangtggct tcaccagcac ctctacanct 480  
 W--> 118 ctctgcatgg atactcgtct tggggccac aggatgcaat tgganggctc tttgcacctg 540  
 W--> 119 gngggaaatt gcctgtggtc ctngtggctn ggncaccaac gtactggtn tgtntancc 600

RAW SEQUENCE LISTING  
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125 <212> TYPE: DNA
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178 <221> NAME/KEY: modified_base
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180 <223> OTHER INFORMATION: a, c, g, or t
182 <220> FEATURE:

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## RAW SEQUENCE LISTING

DATE: 03/09/2006

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TIME: 14:19:57

Input Set : A:\OPT003.APP

Output Set: N:\CRF4\03092006\I155708D.raw

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205 <223> OTHER INFORMATION: a, c, g, or t  
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215 <223> OTHER INFORMATION: a, c, g, or t  
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220 <223> OTHER INFORMATION: a, c, g, or t  
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223 <221> NAME/KEY: modified\_base /  
224 <222> LOCATION: (546)..(546)  
225 <223> OTHER INFORMATION: a, c, g, or t  
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TIME: 14:19:57

Input Set : A:\OPT003.APP

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274 <222> LOCATION: (628)..(628)
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      280 gcccttctcc aatgcgacgg gtgtggtacg cagcccttc gagtaccac agtactacct 180
      281 ggctgagcca tggcagttct ccatgctggc cgcctacatg tttctgctga tcgtgctggg 240
      282 ctcccccatc aacttctca cgctctacgt gaccgtccag cacaagaagc tgcgcacgcc 300
W--> 283 tctcaactac atcctgctca acctanccgt ggntgaactc ttcattggctc taggtggctt 360
W--> 284 caccancaac ctctanacct ctctgcatgg anacttctc ttccggccca caggatgcaa 420
W--> 285 tttggaagg ttcctttaac acccgggggg ggaaaattgc ctgtggtcct tgggtggctcg 480
W--> 286 gncancnaac ggtacttgtg gtnnttaanc cataaacaat tccgcttcgg gaaaaacatg 540
W--> 287 ccancntggg gtttcttca ctnggttang ggcnnggtgc cccacccca atccnnggtn 600
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292 <211> LENGTH: 686
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294 <213> ORGANISM: Artificial Sequence
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298     human rhodopsin adRP mutant sequence
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303 <223> OTHER INFORMATION: a, c, g, or t

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**RAW SEQUENCE LISTING ERROR SUMMARY**  
**PATENT APPLICATION: US/09/155,708D**

DATE: 03/09/2006  
 TIME: 14:19:58

Input Set : A:\OPT003.APP

Output Set: N:\CRF4\03092006\I155708D.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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 Seq#:2; N Pos. 3, 4, 5, 6, 21, 31, 34, 104, 326, 333, 366, 376, 392, 398, 430, 482, 485, 487  
 Seq#:2; N Pos. 503, 509, 544, 546, 563, 569, 574, 596, 600, 606, 620, 621, 623, 626, 628  
 Seq#:3; N Pos. 1, 2, 3, 10, 19, 31, 49, 387, 414, 427, 501, 508, 524, 549, 561, 563, 572  
 Seq#:3; N Pos. 606, 617, 628, 632, 656, 665, 670, 680, 682, 683  
 Seq#:4; N Pos. 2, 5, 32, 39, 87, 135, 137, 142, 178, 254, 298, 305, 353, 358, 395, 403, 410  
 Seq#:4; N Pos. 414, 435, 469, 472, 496, 497, 511, 516, 527, 548, 559, 569, 572, 583, 609  
 Seq#:4; N Pos. 617, 629, 630, 632, 641, 645, 649, 651, 654, 655, 656, 657, 658, 659, 660  
 Seq#:4; N Pos. 661, 662, 663, 664, 666, 667, 668, 669, 672, 674, 680, 707, 709, 721, 723  
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 Seq#:7; N Pos. 1, 2, 3, 4, 11, 25, 27, 29, 33, 34, 38, 40, 46, 91, 238, 240, 408, 413, 438  
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 Seq#:8; N Pos. 417, 425, 441, 448, 464, 469, 478, 486, 500, 504, 509, 515, 524, 556, 566  
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 Seq#:10; N Pos. 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682  
 Seq#:13; N Pos. 6, 10, 12, 15, 104, 377, 410, 414, 421, 437, 472, 483, 502, 526, 550, 556  
 Seq#:13; N Pos. 563, 585, 601  
 Seq#:14; N Pos. 2, 11, 19, 139, 372, 377, 403, 450, 454, 455, 465, 476, 486, 487, 495, 497

**RAW SEQUENCE LISTING ERROR SUMMARY**  
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Seq#:17; N Pos. 667,683,686,688,700,720,741,742,754,758,760,762,763,768,777  
Seq#:17; N Pos. 778,779,783,790  
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Seq#:18; N Pos. 495,518,590,615,640,642,654,669



## VERIFICATION SUMMARY

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Input Set : A:\OPT003.APP

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L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
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L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:420  
L:118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:480  
L:119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:540  
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:279 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:60  
L:283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:300  
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:360  
L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:420  
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:480  
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:540  
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:600  
L:421 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:360  
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:420  
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L:432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:660  
L:725 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:60  
L:727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:120  
L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:240  
L:730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:300  
L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:360  
L:732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:420  
L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:480  
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:540  
L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:600  
L:736 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:660  
L:737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:720  
L:738 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:780  
L:931 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:60  
L:933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:120  
L:936 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:300  
L:937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:360  
L:938 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:420  
L:939 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:480  
L:940 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:540  
L:941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:600  
L:942 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:660  
L:1070 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:1071 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:60  
L:1073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:180  
L:1076 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360  
L:1077 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:420

## VERIFICATION SUMMARY

DATE: 03/09/2006

PATENT APPLICATION: US/09/155,708D

TIME: 14:19:58

Input Set : A:\OPT003.APP

Output Set: N:\CRF4\03092006\I155708D.raw

L:1078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:480  
L:1079 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:540  
L:1283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:1284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:60  
L:1286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:180  
L:1289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:360  
L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:420  
L:1291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480  
L:1292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:540  
L:1293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:600  
L:1537 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:1539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:120  
L:1541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:240  
L:1542 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:300  
L:1543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:360  
L:1544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:420  
L:1545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:480  
L:1546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:540  
L:1547 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:600  
L:1548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:660  
L:1641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:1642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:60  
L:1643 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:120  
L:1645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:240  
L:1646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:300  
L:1647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:360  
L:1648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:420  
L:1649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:480  
L:1650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:540  
L:1651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:600  
L:1652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:660  
L:1786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
L:1787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:60  
L:1792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:360  
L:1793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:420  
L:1794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:480  
L:1795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:540  
L:1796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:600  
L:2054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:2056 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:120  
L:2060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:360  
L:2061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:420  
L:2062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:480  
L:2063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:540  
L:2064 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:600  
L:2065 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:660  
L:2383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:2384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:60  
L:2385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:120

## VERIFICATION SUMMARY

DATE: 03/09/2006

PATENT APPLICATION: US/09/155,708D

TIME: 14:19:58

Input Set : A:\OPT003.APP

Output Set : N:\CRF4\03092006\I155708D.raw

L:2387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:240  
L:2388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:300  
L:2389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:360  
L:2390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:420  
L:2391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:480  
L:2392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:540  
L:2393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:600  
L:2394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:660  
L:2612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:2614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:120  
L:2616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:240  
L:2617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:300  
L:2618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:360  
L:2619 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:420  
L:2620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:480  
L:2621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:540  
L:2622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:600  
L:2623 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:660  
L:2624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:720  
L:2625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:780  
L:2888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:2889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:60  
L:2890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:120  
L:2891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:180  
L:2892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:240  
L:2893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:300  
L:2894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:360  
L:2895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:420  
L:2896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:480  
L:2897 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:540  
L:2898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:600  
L:2899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:660  
L:2900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:720  
L:2901 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:780  
L:3034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:3035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:60  
L:3039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:300  
L:3040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:360  
L:3041 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:420  
L:3042 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:480  
L:3043 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:540  
L:3044 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:600  
L:3045 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:660